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IN THE CLAIMS:

1. (Cancel)

2. (Currently Amended) A method of controlling hand over in a mobile communication system comprising a mobile station, a plurality of base stations each communicating with the mobile station, and a base station controller controlling a̶ the plurality of base stations, i̶n̶ ̶w̶h̶i̶c̶h̶ ̶a̶ ̶r̶e̶c̶e̶i̶v̶e̶d̶ ̶l̶e̶v̶e̶l̶ ̶o̶f̶ ̶a̶ ̶p̶e̶r̶c̶h̶ ̶c̶h̶a̶n̶n̶e̶l̶ ̶s̶i̶g̶n̶a̶l̶ ̶r̶e̶c̶e̶i̶v̶e̶d̶ a̶t̶ ̶a̶ ̶m̶o̶b̶i̶l̶e̶ ̶s̶t̶a̶t̶i̶o̶n̶ ̶f̶o̶r̶ ̶d̶e̶c̶i̶d̶i̶n̶g̶ ̶a̶ ̶r̶a̶n̶g̶e̶ ̶o̶f̶ ̶a̶ ̶c̶e̶l̶l̶ ̶(̶o̶r̶ ̶s̶e̶c̶t̶o̶r̶)̶ ̶i̶s̶ ̶c̶o̶m̶p̶a̶r̶e̶d̶ ̶w̶i̶t̶h̶ ̶a̶ r̶e̶f̶e̶r̶e̶n̶c̶e̶ ̶v̶a̶l̶u̶e̶,̶ ̶t̶o̶ ̶j̶u̶d̶g̶e̶ ̶t̶i̶m̶i̶n̶g̶ ̶o̶f̶ ̶s̶t̶a̶r̶t̶i̶n̶g̶ ̶o̶r̶ ̶e̶n̶d̶i̶n̶g̶ ̶h̶a̶n̶d̶ ̶o̶v̶e̶r̶,̶ said method comprising: t̶h̶e̶ ̶s̶t̶e̶p̶s̶ ̶o̶f̶:

each of the plurality of base stations transmitting a perch channel signal which decides a range of a cell (sector) to be covered by one base station to the mobile station;

the mobile station measuring a received level of the perch channel signal when the signal is received from the plurality of base stations, and based on a result of the measurement, transmitting information on a hand over source cell (source sector), a hand over destination candidate cell (candidate sector) and on the received level of the perch channel signal associated with these cells (sectors) to each of the base stations;

each of the base stations transmitting the information to the base station controller when the information is received from the mobile station; and

when the base station controller receives the information from the mobile station through the plurality of base stations, the controller performing the steps of:

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~~preparing~~ reading a correction value ~~in advance for each combination~~ ~~of a~~ stored in a storage unit based on information on the hand over source cell (~~or~~ source sector) and ~~a~~ the hand over destination candidate cell (~~or destination~~ candidate sector) ~~of hand over~~ contained in the information, the correction value being used to correct a reference value of the received signal level necessary for controlling the hand over;

~~recognizing a combination of a source cell (or source sector) and a~~ ~~destination cell (or destination sector) as objects of hand over to be started or ended;~~

correcting ~~said~~ the reference value ~~using a~~ with the correction value ~~prepared in advance for said combination recognized~~; and

~~judging timing of starting or ending of said~~ controlling the hand over ~~using said~~ based on the corrected reference value ~~corrected~~ and the received signal level of the perch channel signal contained in the information from the mobile station.

        3. and 4.   (Cancel)

        5. (Currently Amended)   ~~A method~~ The method of controlling hand over according to Claim 2, wherein ~~in a mobile communication system, in which a~~ ~~received level of a perch channel signal received at a mobile station for deciding a~~ ~~range of a cell (or sector) is compared with a reference value, to judge timing of~~ ~~starting or ending hand over, comprising the steps of:~~

        ~~accumulating at least one result (success or failure) of judging said timing~~ ~~using said reference value for each combination of a source cell (or source sector)~~ ~~and a destination cell (or destination sector) of hand over;~~

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~~correcting said reference value depending on said accumulated result; and~~

~~setting said corrected reference value as a new reference value that is used in~~

~~judging timing of starting or ending hand over with respect to said combination again.~~
the base station controller updates the correction value stored in the storage unit

based on the result of hand over performed.

6. (Currently Amended)   A method of controlling hand over according to claim

5, wherein the base station controller controls transmission power of the perch

channel signal depending on the hand over performed. ~~In a mobile communication~~

~~system, in which a received level of a perch channel signal received at a mobile~~

~~station for deciding a range of a cell (or sector) is compared with a reference value,~~

~~to judge timing of starting or ending hand over, comprising the steps of:~~

~~accumulating at least one result (success or failure) of judging said~~

~~timing using said reference value for each combination of a source cell (or source~~

~~sector) and a destination cell (or destination sector) of hand over; and~~

~~adjusting a transmitting level of a perch channel of a base station~~

~~covering a source cell (or source sector) or a destination cell (or destination sector)~~

~~of a combination concerned, depending on the accumulated result.~~

7. (Currently Amended) A base station controller ~~that judges timing of starting~~

~~or ending hand over by comparing a received level of a perch channel signal with a~~

~~reference value, with said perch channel signal being received at a mobile station~~

~~and used for deciding a range of a cell (or sector), comprising:~~ in a mobile

communications system comprising a mobile station, a plurality of base stations

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which each communicate with the mobile station, and the base station controller

controlling the plurality of base stations,

    the base station controller comprising:

        a storage unit that stores a correction value used for ~~each combination~~

~~of a source cell (or source sector) and a destination cell (or destination sector) of~~

~~hand over;~~ correcting a reference value of a received signal level necessary for

controlling hand over;

        ~~an acquiring unit for acquiring information from a mobile station, said~~

~~information indicating a combination of a source cell (or source sector) and a~~

~~destination cell (or destination sector) of hand over to be started or ended with~~

~~respect to said mobile station;~~

        ~~a correcting unit that corrects said reference value using a correction~~

~~value that is stored in said storage unit correspondingly to the combination of the~~

~~source cell (or source sector) and the destination cell (or sector), with said~~

~~combination being recognized from the information acquired by said acquiring unit;~~

~~and~~

        ~~a timing judgement unit that uses the reference value corrected by said~~

~~correcting unit, to judge timing of starting or ending the hand over to be started or~~

~~ended with respect to said mobile station.~~

        an interface unit which receives information outputted from the mobile

station through the plurality of base stations, the information being necessary for

controlling hand over; and

        a control unit which reads the correction value stored in the storage

unit based on information on the hand over source cell (source sector) and on the

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hand over destination candidate cell (candidate sector) contained in the information

received by the interface unit, corrects the reference value with the correction value;

and controls the hand over based on the corrected reference value and the received

signal level of the perch channel signal contained in the information from the mobile

station.

    8. (Currently Amended)   A base station controller that judges timing of

starting or ending hand over by comparing a received level of a perch channel signal

with a reference value, with said perch channel signal being received at a mobile

station and used for deciding a range of a cell (or sector), comprising: according to

Claim 7, wherein:

    an acquiring unit for acquiring information from a mobile station, said

information indicating a combination of a source cell (or source sector) and a

destination cell (or destination sector) of hand over to be started or ended with

respect to said mobile station;

        a timing judgement unit that uses said reference value to judge timing

of starting or ending the hand over with respect to said mobile station; and

        a correcting unit that accumulates at least one result (success or

failure) of trying starting or ending the hand over according to the timing judged by

said timing judgement unit for the combination of the source cell (or source sector)

and the destination cell (or destination sector) indicated by the information acquired

by said acquiring unit, corrects said reference value depending on said accumulated

result, and sets said corrected reference value as a new reference value that is used

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~~by said timing judgement unit for judging timing of starting or ending the hand over~~

~~with respect to said combination again.~~

the control unit updates the correction value stored in the storage unit based

on hand over performed.

9. (~~Original~~)   A base station controller ~~that judges timing of starting or ending~~

~~hand over by comparing a received level of a perch channel signal with a reference~~

~~value, with said perch channel signal being received at a mobile station and used for~~

~~deciding a range of a cell (or sector), comprising:~~ according to Claim 8, wherein:

the control unit controls transmitting power of the perch channel signal

depending on the result of hand over performed.

~~an acquiring unit for acquiring information from a mobile station, said~~

~~information indicating a combination of a source cell (or source sector) and a~~

~~destination cell (or destination sector) of hand over to be started or ended with~~

~~respect to said mobile station;~~

~~a timing judgement unit that uses said reference value to judge timing~~

~~of starting or ending the hand over with respect to said mobile station; and~~

~~an adjusting unit that accumulates at least one result (success or~~

~~failure) of trying starting or ending the hand over according to the timing judged by~~

~~said timing judgement unit for the combination of the source cell (or source sector)~~

~~and the destination cell (or destination sector) indicated by the information acquired~~

~~by said acquiring unit, and adjust a transmitting level of a perch channel signal of a~~

~~base station that covers the source cell (or source sector) or the destination cell (or~~

~~destination sector) of said combination, depending on said accumulated result.~~

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10. (Currently Amended) A mobile ~~terminal that judges timing of starting or ending hand over by comparing a received level of a perch channel signal with a reference value, with said perch channel signal being used for deciding a range of a cell (or sector), comprising:~~ station in a mobile communication system which comprises the mobile station, a plurality of base stations which each communicate with the mobile station, and a base station controller controlling the plurality of base stations,

the mobile station comprising:

a storage unit that stores a correction value ~~for each combination of a source cell (or source sector) and a destination cell (or destination sector) of hand over;~~ used for correcting a reference value of a received signal level necessary for controlling hand over; and

~~a recognizing unit that recognizes a source cell (or source sector) and a destination cell (or destination sector) of hand over to be started or ended, based on received levels of perch channel signals;~~

~~a correcting unit that corrects said reference value using a correction value that is stored in said storage unit correspondingly to a combination of the source cell (or source sector) and the destination cell (or destination sector) recognized by said recognizing unit; and~~

~~a timing judgement unit that uses the reference value corrected by said correcting unit, to judge timing of starting or ending said hand over to be started or ended.~~

a control unit which measures a received level of a perch channel signal when the signal is received from the plurality of base stations, selects a candidate cell

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(candidate sector) for hand over based on the measured result, reads the correction

value stored in the storage unit based on information on the hand over source cell

(source sector) and on the hand over destination candidate cell (candidate sector) to

correct the reference value with the correction value, and controls hand over based

on the corrected reference value and the received signal level of the perch channel

signal of the hand over source cell (source sector) and hand over destination cell

(candidate sector).

11. (Currently Amended) The mobile ~~terminal~~ station according to Claim 10,

~~further comprising:~~ wherein

a ~~notifying~~ the control unit that notifies ~~a result (success or failure) of trying~~

~~starting or ending the hand over according to the timing judged by said timing~~

~~judgement unit, to a~~ the base ~~station with which said mobile terminal is~~

~~communicating.~~ stations under communication of the result of the hand over

performed.

12. (New) The method of controlling hand over according to Claim 2, wherein

the correction value is a tabulated correction value stored in a correction value table

having a plurality of correction values arranged according to hand over source cells

(source sectors) and hand over destination candidate cells (candidate sectors).

13. (New) The base station controller according to Claim 7, wherein the

correction value is a tabulated correction value stored in a correction value table

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having a plurality of correction values arranged according to hand over source cells

(source sectors) and hand over destination candidate cells (candidate sectors).

14. (New) The mobile station according to Claim 10, wherein the correction

value is a tabulated correction value stored in a correction value table having a

plurality of correction values arranged according to hand over source cells (source

sectors) and hand over destination candidate cells (candidate sectors).